GLACIER POINT ROAD
Yosemite National Park
Between Chinquapin Flat and Glacier Point
Wawona vicinity
Mariposa County
California

HAER No. CA-157

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
P.O. Box 37127
Washington, D.C. 20013-7127

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HISTORIC AMERICAN ENGINEERING RECORD

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I. INTRODUCTION

Location:	Between Chinquapin Flat and Glacier Point, Yosemite National Park vicinity, Mariposa County, California. UTM: West end: Chinquapin Flat Ackerson Mountain quadrangle 11/248000/4183280 East end: Glacier Point El Capitan quadrangle 11/260665/4177865
Date of Construction:	1874
Designer and Builder:	Builder: Albert Henry Washburn and partners
Original and Present Owner	Original Owner: Yosemite Stage and Turnpike Company Present Owner: Yosemite National Park, National Park Service
Present Use:	Park road.
Significance:	The Glacier Point Road is a scenic drive providing access to Yosemite's most popular overlook. The road was opened as a toll wagon road in the 1870s, and reconstructed as a modern highway in the 1930s.
Project Information:	Documentation of the Glacier Point Road is part of the Yosemite National Park Roads and Bridges Documentation Project, conducted in summer 1991 by the Historic American Engineering Record. Richard H. Quin, Historian, 1991

II. HISTORY

This is one in a series of reports prepared for the Yosemite National Park Roads and Bridges Recording Project. HAER No. CA-117, YOSEMITE NATIONAL PARK ROADS AND BRIDGES, contains an overview history of the park roads.

HISTORY OF THE GLACIER POINT ROAD

The Glacier Point Road provides access to the most famous and popular overlook in Yosemite National Park, Glacier Point. The promontory is located on the south rim of Yosemite Valley, and offers a splendid view of the upper end of the Valley, with Half Dome, Yosemite Falls, Nevada Fall, Vernal Fall, Illouette Fall and the upper Valley meadows all prominently displayed. A toll trail was the first route constructed to the point from Yosemite Valley; a few years later a primitive saddle road was built from Chinquapin Flat on the Wawona Road. The road was reconstructed along with other principal park roads in the 1930s and remains one of Yosemite's most popular scenic drives.

For the first decade and a half after the Mariposa Expedition's "discovery" of the Yosemite Valley in 1855, Glacier Point was only accessible to the mountaineer or bushwacker. No road or trail reached the south rim of the Valley. But the splendor of the view from Glacier Point induced entrepreneurs to provide means of access and concessions for visitors. By 1860, visitors were making the trek, and in 1869 Charles Peregoy built the rustic Mountain View Hotel in nearby Peregoy Meadow.[1]

In 1871, John Conway built the Four-Mile Trail to from Yosemite Valley to Glacier Point for James McCauley at a cost of $3,000. McCauley operated it as a toll trail, charging visitors who wished to make the climb to see the park's most famous view. A toll house was located at the base of the trail. Charles Peregoy started to build a hotel at Glacier Point but soon disposed of his property to McCauley. McCauley soon developed the Mountain View House Hotel on the promontory.[2] A little later, on a 4th of July, McCauley arranged a "firefall," in which burning embers from a bonfire were pushed over Glacier Point in the evening to make a brilliant pyrotechnic display for the entertainment of Yosemite Valley spectators.[3] This extravaganza was later revived by concessionaires David and Jennie Curry, and was a popular event until it was abolished by the National Park Service in 1968.

The Washburn-controlled Yosemite Stage and Turnpike Company completed the Wawona Road [HAER No. CA-148] from Mariposa via the South Fork of the Merced to Yosemite Valley on 22 July 1875. The most successful of the Yosemite toll roads, the Wawona Road was the primary entrance road from Southern California, and with its rail connections at Raymond, carried the major part of the Yosemite tourism traffic until the completion of the Yosemite Valley Rail Road in 1907. The Washburns held a monopoly on stagecoach traffic over the road, and sought to develop attractions along the road to draw more visitors. Galen Clark's early primitive hostel at the South Fork was upgraded as "Big Tree Station" and ultimately became the Wawona Hotel. The Washburns constructed a spur road into the Mariposa Grove of Giant Sequoias in 1878. These developments increased toll and stage revenues for the Wawona Road, and helped influence the cartel to open up a wagon road to Glacier Point to further promote their business.

By the late 1870s, the company had opened up a saddle route from Elevenmile Station on the Wawona Road *via* Glacier Point to the Valley; this route immediately proved popular with many visitors.[4] In 1881, the *Mariposa Gazette* reported that "a great army of tourists are now going to Glacier Point *via* Elevenmile Station."[5]

The new saddle trail was well-received, and the Washburns subsequently hired Conway to reconstruct the trail as a wagon road from Chinquapin Flat (near Elevenmile Station on the Wawona Road) to Glacier Point. Conway did the work in 1882 at a cost of $8,000.[6] The new road was 14 miles long, and open from late spring to early winter.

The Four-Mile Trail was bought out by the state in 1882 for $2500 and was freed from tolls.[7] Usage continued to increase. Another trail, the Ledge Trail, was opened by the National Park Service in 1917, although the stesp route had been used much earlier. A number of accidents, culminating in a death in 1957, led to the closure of this trail, although it is still used occasionally.

On 23 June 1900, Oliver Lippincott drove a steam-powered Locomobile from Wawona to Yosemite Valley. It was the first automobile to enter Yosemite National Park. A day or two later, Lippincott drove the car over the Glacier Point Road to its end, where the car was pushed out on the overhanging rock at Glacier Point for a publicity photograph.[8] A few other cars probably made ths trip before automobiles were banned from the park in 1907.

U.S. Cavalry troops, which were overseeing the administration of the national park, constructed a small branch road from the Glacier Point Road to Mono Meadow in 1904.[9]

In 1907, Louis C. Hill, Supervising Engineer for the United States Reclamation Service, recommended construction of a nsw road from Yosemite Valley up the Merced River to Glacier Point. Hill also proposed a similar road along the north rim of the canyon to the tops of El Capitan and Yosemite Falls.[10] The park engineer, Lt. A. R. Ehrnbeck of the U.S. Army Corps of Engineers, repeated the proposal in 1909, and gave details for the location of the new road. It would leave Happy Isles in the Valley, climb up the Merced River's upper gorge along Vernal and Nevada falls, then would follow the Valley's south rim by Illouette Fall to Glacier Point.[11] This was roughly the route of the Mist and Panorama trails. Fortunately, the road was not built, as its effect on the Valley landscape would have been devastating. The project had considerable support. One adherent was William E. Colby, secretary of the Sierra Club, which at the time still supported improved access to Yosemite.[12]

The park ban on automobiles was lifted by Secretary of the Interior Franklin K. Lane in April 1913, though for a year cars were restricted to the Coulterville Road. In August 1914, cars were again permitted on the Wawona Road and the spur road to Glacier Point. Motorists were at first subject to a special fee for travel over the Glacier Point Road, though this was lifted in July 1915. That year, the Desmond Park Service Company completed the imposing Glacier Point Hotel near the overlook. James McCauley's old Mountain House Hotel was joined to the new hotel as an annex. Almost immediately, the road was subject to heavy use.[13]

The Glacier Point Road, along with the Wawona Road and the spur road to the Mariposa Grove, was still the property of the Washburn cartel until 1917. That year, the federal government acquired control of the roads in exchange for certain transportation concessions granted to the Washburns. The last toll charges in the park were eliminated.[14]

Yosemite Park Superintendent Washington B. Lewis in 1924 repeated the earlier proposal for a road from Yosemite Valley up the Merced River and along the south rim to Glacier Point.[15] This road was never built, but the proposal reflects the prevailing attitude among park management that improved access should be provided to ths motoring public.

The National Park Service and the Bureau of Public Roads (U.S. Department of Agriculture) signed a Memorandum of Agreement in July 1925 under which the

Bureau took responsibility for the construction and reconstruction of major roads in all national parks. In 1926, Bureau Engineer Frank A. Kittredge drew up new road standards and a master plan for reconstruction of inadequate park roads. In Yosemite, the Wawona Road was to be rebuilt, and following its completion, the Glacier Point Road was to be reconstructed.

In the meantime, the road was given increased attention and maintenance. Between 35 and 40 turnouts on the road between Glacier Point and Mono Meadows were replaced in the summer of 1926. Five culverts were replaced and some minor resurfacing was done.[16]

In October 1926, Assistant Superintendent E. P. Leavitt, Harry S. Tolen of the Bureau of Public Roads, and National Park Service landscape architect Daniel R. Hull traveled over the Pohono Trail to Glacier Point, trying to site a new alignment for the road as close as possible to the Valley rim.[17]

As an alternative (or as a supplement) to the new road, Dr. Donald Tressider of the Yosemite Park and Curry Company in 1929 proposed the construction of a cable car system to convey visitors from Yosemite Valley to Glacier Point, where the company operated the Glacier Point Hotel. An engineer from the Adolph Bleichert Company of Austria came to the park in February to investigate a route for the cableway and a second route up the Tenaya Creek Canyon to Tenaya Lake.[18] The Yosemite National Park Board of Expert Advisors found some merit in the proposal for the Glacier Point tramway, believing it might alleviate some of the congestion on park roads. But the high visibility of any such cable system would have seriously impacted the spectacular Valley landscape, and Board members feared that park visitors would view the tramway as an unnatural attraction, a "ride" rather than a means of access to Glacier Point.[19] The proposal was ultimately rejected.

While awaiting reconstruction, the Glacier Point Road received improved maintenance in the late 1920s and early 1930s. In the summer of 1929, the road was oiled as a dust prevention measure. Yosemite National Park Superintendent Charles Goff Thomson reported that the treatment "was a source of profound satisfaction among park visitors, especially those expecting the intolerable dust previously encountered. Each year, park crews graded the road, cleared away rockslides and fallen debris, and applied surfacing materials, followed by a coat of light fuel oil to help reduce the dust. Superintendsnt Thomson estimated that the road's reconstruction would eliminate maintenance by 75 percent.[20] The bridge over Bridalveil Creek was replaced by four 24' long culverts in October 1930.[21]

More than 100,000 tourists were now visiting Glacier Point each year, but statistics showed that 90 percent of these were hikers who climbed the Four-Mile Trail or the lesser-used Ledge Trail from Yosemite Valley. Only about 12,000 automobiles made the trip back and forth from the Wawona Road. Many motorists were apprehensive about the rough conditions on the primitive motor road, which was merely an improved saddle train route, with sharp switchbacks and 20 percent grades in places. The road, which was from 10'-15' wide, ran through cuts for extensive stretches. These sections were poorly exposed to sunlight and consequently were closed by snow cover for long period. The National Park Service decided to reconstruct the road as a modern highway in order to provide much improved access and to encourage travel to Glacier Point. Planning for the new road began in 1930.[22]

The new Glacier Point Road location survey was run in 1930 and 1931 by Harry S. Tolen, Resident Engineer for the Bureau of Public Roads, and Karl E. Nissi, BPR Senior Engineering Inspection Foreman. They were assisted by Yosemite National Park Superintendent Charles Goff Thomson and resident landscape engineer John B. Wosky. Several routes were investigated. The original plan

was for the road to follow up Indian Creek from Chinquapin Flat. This route was the shortest by a mile and a half, would require less excavation than the others, and was better exposed and more direct, requiring fewer curves. Howevsr, the lower 4 miles of the area had recently bssn logged, and the park management decided to dismiss this option.[23] A tunnel under the saddle of Sentinel Dome was also considered and rejected.[24] A third altsrnative would have called for a one-way loop road from Bridalvsil Creek around one side of Sentinel Dome and back along the Illouette Canyon and by Mono Meadow; this too, was rsjected.[25]

Ths location survey was halted by heavy snows in November 1930, and the records were transferred to the BPR field office, located in a hotel in Oakhurst. This hotel was destroyed by a fire in late November and the survey records were consumed.[26] The survey crews had to run the lines all over again. The new survey also included a possible route for the proposed tramway, which at this point had not yet been rejected. Following the resurvey, the new Glacier Point Road was designed by the San Francisco district office of the Bureau of Public Roads in 1931. The BPR and ths National Park Service began final surveys of a new route for the road between Chinquapin Flat and Bridalveil Creek in May 1931; this section would follow a general east-northeasterly route via Grouse Creek.[27]

Funding for the road's reconstruction was obtained in part through the National Recovery Act. The new road was to have easier grades and a wider track than ths earlier carriage road. The section between Chinquapin Flat and Bridalveil Creek would be built to the 16' Forest Highway Standards, and would be a full 22' wide (shoulder-to-shoulder) in fills and cuts. Open curves would have a minimum radius of 200' and blind curves 300'. The maximum grade, after compensation for curves, would be 6 percent. Deep cuts on utilized existing sections of road were to be daylighted. All curves less than 1000' in length would be widened. Elevated sections of the road would be built on compacted fill, covered with sod from adjacent meadows.[28] By early fall, the bids were put out for the Chinquapin Flat-Bridalveil Creek section, and the Lang Transportation Company recsived the contract. However, Lang was unable to secure a bond for the work, and had to forfeit an $11,000 surety. The contract was then given to ths San Francisco construction firm of Granfield, Farrar and Carlin, which submitted a bid of $290,272.80 for the project.[29]

The new contractors began work in May 1932. They established a temporary work camp at Chinquapin Flat, with plans to move to Grouse Creek when weather permitted. The clearing work was subcontracted to the A. Mitchell Company of Sacramento, which commenced operations in late May. A 1 2/2-cubic yard Northwsst power shovel was brought in for the grading work; this was supplemented in June by two mors shovels, sight trucks, and seven compressors. Another shovel and six tractors were put on the job in July.* The Park Service protested the subcontractor's poor management practices, particularly when a slash fire escaped right-of-way and spread to the adjoining woods. Clearing, however, went rapidly, and by mid-summer more than half of the

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* This list of equipment used on the section is taken from the park superintendent's monthly reports; the final construction report filed by the Bureau of Public Roads lists somewhat different machinsry: two 8-cubic yard Linn tractor trucks, one 5-cubic yard Mack truck, two Air Bucyrus Erie gas shovels, two 1 1/2-cubic yard Northwest shovels, six Caterpillar tractors (one with a logging winch), three 5-cubic yard International trucks, two 5-cubic yard White trucks, five 5-cubic yard Autocar trucks, three 1-ton Ford trucks, fivs compressors and a 12' Austin grader. (Roach, "Final Construction Report, Chinquapin Flat-Bridalveil Creek Section," 9.)

right-of-way had been opened up.[30] The new section of road utilized a series of long wide curves to drop more gently than the old road to Chinquapin Flat.[31]

Noted landscape architect Frederick Law Olmsted, Jr., a member of the Board of Expert Advisors for the Yosemite National Park, submitted a design for a new parking area at Glacier Point in June 1932.[32] This lot, along with a smaller parking area and viewpoint at Washburn Point, was incorporated in the final design for the road project.

Clearing for the road was completed in October 1932. The contractors' camp, which by this time had been relocated to Grouse Creek, was destroyed by fire on 19 November. This hampered operations somewhat, but by the time inclement weather caused the project to be shut down for the winter on 28 November, the rough grading of the road was complete.[33]

As part of the road reconstruction project, a new bridge for the crossing of Bridalveil Creek was designed by the San Francisco office of the Bureau of Public Roads. The bridge [HAER No. CA-103] was built by contractor Nelson & Wallace of Escalon, California, which submitted the low bid of $10,359.50. The 32' foot bridge was of steel "I"-beam construction, and rested on cement rubble masonry abutments. A characteristic example of the NPS "rustic style," the small bridge was designed to appear to be of wooden construction. The stsel deck was concealed by yellow pine stringers along the sides, and the guard rail was of yellow and lodgepole pine construction. (Sections of tree trunks have replaced the original rail.) Work began on 11 July 1933, and the bridge was completed on 5 October.[34]

The grading work for the Chinquapin-Bridalveil Creek section resumed the next summer, and was completed on 24 August 1933. The parallel section of the old Glacier Point Road remained in use until surfacing work could be completed. Granfield, Farrar and Carlin also built the Chinquapin Flat plaza at the intersection of the Wawona and Glacier Point roads. A ranger station and residence, comfort station and gas station were built there in 1933-34. Paving of the new road commenced on 30 October; the contractor was the Granite Construction Company.[35] Granite established its construction camp at the reconstructed facility at Grouse Creek.[36]

National Park Service Chief Engineer Frank A. Kittredge, Yosemite Superintendent Charles Goff Thomson and Yosemite Park Supervisor Gabriel Sovulewski inspected the easternmost section between the Sentinel Dome "Saddle" and Glacier Point in September 1933, and approved the proposed route.[37] The segment was to be constructed to a width of 18' and a maximum grade of 9 percent. This section was constructed by day labor crews under the supervision of the Bureau of Public Roads. A 36 car parking area was to be constructed at Washburn Point, along with the new 140-space parking area designed by Olmsted for Glacier Point. Clearing work was done with a 30-horsepower tractor and a tumblebug scraper. The section was graded in 1932 and 1933, and surfaced in 1933 and 1934. The road work was completed on 15 August 1934, and the parking areas on 1 October. The BPR supervising engineer lamented that this final stretch of the road was built "far below standards (with the narrower width and steeper grades)," but suggested it would be adequate for "several years."[38]

The Granite Construction Company also received the contract for the section of road between Bridalveil Creek and Sentinel Saddle. By the end of August 1934, they had rough graded 2 miles, using a power shovel and two trucks. Surfacing of the section between Chinquapin Flat and Bridalveil Creek was nearly complete. Day labor under BPR supervision graded in the area of the Saddle and prepared a new parking area at Washburn Point.[39]

The new, wide-curve section of road between Chinquapin Flat and Bridalveil Creek was opened to use in September 1934, although oiling work continued. On the upper end of the road, the new parking areas were finished a month later, and the road was fitted with log guard rails.[40]

Work resumed on the remaining sections in summer 1935. The section between Glacier Point and the Sentinel Saddle was also done with day labor under BPR supervision. Ths subgrade laid on this section proved unsatisfactory, and the BPR ordered it replaced in June. Even with this delay, the surfacing work on the segment was 99 percent complete at the end of July. By September the final work was done and the road had been oiled. On the section between Bridalveil Creek and the Saddle, Granite Construction Company completed its surfacing and grading work in mid-October, and the work was accepted by the Park Ssrvice. A park press release called it a modsrn "high-gear" road to Glacier Point.[41] Despite the necessary detours and controls required for construction, as many as 500 cars a day passed over the road.[42]

Yosemite National Park Superintendent Charles Goff Thomson wrote the Director Arno Cammerer of the National Park Servics in 1935 to inform him of the completion of the project:

> It is difficult to realize that the much-talked-of Glacier Point Road is now a reality. You will recall the long studies and discussions of the feasibility of any modern road, the substitution of a tramway for the road, the loop road proposal, and the proposals to stop at Sentinel Saddls or at Washburn Point. This Glacier Point subject was precipitated practically upon my arrival here near 7 years ago, and into the picturs we drew Mr. Albright, all of the Advisory Board, Dr. Hewes, Mr. Tolen, Mr. Roach, Dr. Matthes, Dr. Tressider, Mr. Wosky,* and at least a score of others with lesser interests. Riding over it today, I could not but recall the dozens of msetings, discussions, and the endless miles some of us have hiked in search of solutions...So far as Yosemite is concerned, it marks the highest standard yet attained in road construction through difficult country.[43]

Soon after the new road opened, Yosemite Park & Curry Company president Don Tressider began urging the Park Service to allow for the construction of a ski area within the park along the new route. The old Monroe Meadows area at Badger Pass was selected, and a new ski area replete with chalet, ski lifts and a large parking lot was established in 1935. The National Park Service built the access roads and parking lots, as well as a small ranger station mainly used for first aid purposes.[44]

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* This list is a virtual "Who's Who" of individuals involved in Yosemite roadbuilding projects in the 1930s. Dr. Lawrence E. Hewes was Chief of the Western Division office of the Bureau of Public Roads; Harry S. Tolen was Supervising Engineer for the Bureau office, and BPR Assistant Highway Engineer Tom Roach served as resident engineer for several Yosemite projects. Dr. F.M. Matthes was chief of the U.S. Geological Survey. Dr. Donald Tressider was president of the Yosemite Park and Curry Company, the park chief concessionaire and operator of the Glacier Point Hotel. John B. Wosky was National Park Service Junior Landscape Engineer attached to the San Francisco office and associated with review and design for numerous Yosemite projects.

In 1937, the National Park Service, seeking to draw the attention of park visitors to the new project, advertised the new Glacier Point Road in a park handbook. The NPS urged all visitors to take in the famous view:

> No visitor should leave Yosemite without seeing Glacier Point. It is the climax of all Yosemite views. It is reached by an excellent paved road which leaves the Valley just west of Bridalveil Fall, and then through the 4,233-foot tunnel to Chinquapin, from which a good paved road leads through forests of fir and lodgepole pine to Glacier Point. The total distance is 30 miles, or about 1-1/4 hours' drive each way. The firefall is a nightly feature in summer and takes on an entirely different aspect from the top of the cliff. A short drive of a half mile from the main road above Glacier Point brings one to Sentinel Dome, 8,117 feet in elevation,* where an unobstructed panorama of the southern half of the park may be had, from the coast range on the west to the snow-capped ridge of the Sierra on the east. A hotel, cafeteria, and Government campground are available at Glacier Point.[45]

In 1939 and 1940 the Glacier Point Road was resurfaced with a bituminous treatment and armor coating. The Bureau of Public Roads (which became the Public Roads Administration in 1940) supervised the project. From Chinquapin Flat to Sentinel Dome Saddle, the road was surfaced a full 20' wide, consisting of an 18' main roadway with a base surface of up to 6" thickness and a 2" top coat. From Sentinel Dome Saddle to Glacier Point, the road was surfaced 18' wide. This section had a 2" base coating and an upper coating 1" thick. The work was completed in August 1940 at a cost of $153,251.03.[46]

Since 1928, the Wawona and Glacier Point roads were formally under construction or post-construction administration by the Bureau of Public Roads and the Public Roads Administration. On 16 October 1940, the roads were formally relinquished to the National Park Service.[47] The transfer marks the completion of the 12-year reconstruction project for the two roads.

A number of improvements were made to the Glacier Point Road in the 1950s and early 1960s as part of the NPS "Mission 66" ten-year development program. The Glacier Point parking lot was graded and had new drains installed in 1957. In 1958, the same lot, along with others at Washburn Point and the Badger Pass Ski Area, were surfaced. The Glacier Point lot was more than doubled to hold 248 automobiles. The Washburn Point lot was tripled in size to accommodate sixty cars, and the Badger Pass lot doubled to hold from 300 to 600 cars. The terminus of the road at Glacier Point was reconstructed to improve traffic flow. This phase of work was completed in June 1958. During the same year, the Bridalveil Creek Campground was enlarged and its access road was improved and widened.[48]

The lower section of the road, between Chinquapin Flat and the Badger Pass Ski Area, was resurfaced in 1960. The Harm Brothers Construction Company received the contract, which also included the resurfacing of the El Capitan Bridge and the Wawona Tunnel. The stretch of road was widened to 22'. The project, including preparation of new turnouts and parking areas and center line striping, was completed in the summer of 1961.[49] The Glacier Point Hotel burned 9 August 1969 and was not rebuilt.

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* Sentinel Dome is 8,122 feet in elevation.

The road was resurfaced from the Badger Pass entrance to a point 1.3 miles east in 1980. The following year, the surfacing was extended from the Taft Point/Sentinel Dome parking area to Glacier Point. The sharp switchbacks in the final approach to Glacier Point were widened, and new shoulders were provided in places. Rock outcroppings on the side of the road were cut away, and a new culvert was laid near the ranger residence. In 1982 and 1983 the section of road between miles 6.3 and 8.8 were resurfaced by the Federal Highway Administration [FHwA]. In 1987 and 1988, the Glacier Point parking area was again rebuilt. The entrance and exit roads were reconstructed, and a new paved walkway to the overlook was installed.[50]

In the late 1980s, the National Park Service began to consider further the widening and reconstruction of portions of the Glacier Point Road. As a part of the comprehensive design work, an historian from the Denver Service Center was sent to Yosemite to determine if any of the road structures, notably the retaining walls and vista points, were eligible for the National Register of Historic Places. The historian found that the rock work at Glacier Point had been replaced only recently, and determined that two short stretches of retaining wall on the lower section of the road could hardly compare in significance to the stone work found on other park roads. His report stated that none of the work seemed eligible for listing in the National Register.[51]

The Glacier Point Road remains one of the more popular scenic drives in Yosemite National Park. The road is maintained for all-year use as far as the Badger Pass Ski Area, but is closed beyond Badger Pass during the winter season. The road beyond is a popular route for cross-country skiers. The magnificent view from Glacier Point has been enjoyed by millions of tourists which have driven over the road.

III. ENDNOTES

1. Harlan D. Unrau, *Historical Overview and Assessment of Significance of Stone Walls and Rock Work Along Glacier Point Road in Yosemite National Park* (Denver, CO: National Park Service, Denver Service Center, January 1990), 1-2.

2. *Ibid.*; Homer W. Robinson, "The History of Business Concessions in Yosemite National Park," *Yosemite Nature Notes*, Vol. XXVII No. 6, June 1948, 90.

3. Alfred Runte, *Yosemite: The Embattled Wilderness* (Lincoln: University of Nebraska Press, 1990), 93.

4. "Notes from Big Tree Station," *Mariposa Gazette*, 16 August 1879, 3; "New Saddle Train Route," *Mariposa Gazette*, 12 April 1879, 3.

5. "Glacier Point," *Mariposa Gazette*, 13 August 1881, 3.

6. Linda Wedel Greene, *Yosemite, The Park and Its Resources: A History of the Discovery, Management, and Physical Development of Yosemite National Park, California*. 3 vols. (Washington, D.C.: Government Printing Office, 1987), 60-61.

7. Unrau, 2.

8. Oliver Lippincott, "The First Locomobile to Reach Yosemite," *San Francisco Chronicle*, 22 July 1900.

9. Greene, I:339-40. The junction with the branch road was cut off when the Glacier Point Road was realigned in the 1930s.

10. Louis C. Hill, Supervising Engineer, U.S. Reclamation Service, to Hon. James R. Garfield, Secretary of the Interior, in H. C. Benson, *Report of the Acting Superintendent of the Yosemite National Park*, 1907 (Washington: Government Printing Office, 1907), Appendix A, 19.

11. A. R. Ehrnbeck, Lt., U.S. Army Corps of Engineers, "Report of the Park Engineer," in William W. Forsyth, Major, Sixth Cavalry, *Report of the Acting Superintendent of the Yosemite National Park*, 1909 (Washington: Government Printing Office, 1909), Appendix A, 16-18. Ehrnbeck also proposed the construction of a road from Yosemite Valley up the rugged Tenaya Creek Canyon to Tenaya Lake.

12. Richard G. Lillard, "The Siege and Conquest of a National Park," *American West*, January 1968, 28, 30.

13. Greene, I:435; Unrau, 5; Hank Johnston, *Yosemite's Yesterdays*. 2 vols. (Yosemite, CA: Flying Spur Press, 1989, 1991), I:46; George V. Bell, "Report of the Superintendent of the Yosemite National Park," in *Reports of the Department of the Interior*, 1915. 2 vols. (Washington, D.C.: Government Printing Office, 1916), I:918.

14. Washington B. Lewis, "Report of the Superintendent of the Yosemite National Park," in *Reports of the Department of the Interior*, 1917. 2 vols. (Washington, D.C.: Government Printing Office, 1918), I:844; Johnston, II:59-60.

15. Robert C. Pavlik, "In Harmony with the Landscape: A History of the Built Environment of the United States" (Master's Thesis, University of California at Santa Barbara, 1986), 186-87.

16. E. P. Leavitt, Acting Superintendent's Monthly Report, August 1926, 3.

17. O. G. Taylor, Acting Superintendent's Monthly Report, October 1926, 1.

18. Leavitt, Acting Superintendent's Monthly Report, February 1929, 6.

19. Runte, 157.

20. Unrau, 6-7.

21. Charles Goff Thomson, Superintendent's Monthly Report, October 1930, 4.

22. Unrau, 7.

23. Karl E. Nissi, Senior Engineering Inspection Foreman, Bureau of Public Roads, "Location Survey Report, Wawona Road-Glacier Point," 31 August 1931, 1-3; Unrau, 7.

24. T. M. Roach, Resident Engineer, Bureau of Public Roads, "Location and Design Report, Project Yosemite S-A2, Glacier Point Road, Bridalveil Fall-Sentinel Dome Saddle Section," 10 March 1933, 2.

25. Roach, "Final Construction Report, Project Yosemite 5-A1-GR, Glacier Point Road, Chinquapin Flat-Bridalveil Creek Section," 3 April 1934, 2.

26. *Ibid.*, 3.

27. Thomson, Superintendent's Monthly Report, May 1931, 4; Unrau, 8.

28. Pavlik, 117; Roach, 2-6; Unrau, 8.

29. Thomson, Superintendent's Monthly Report, October 1931, 8.

30. Idem, Superintendent's Monthly Report, May 1932, 7; Superintendent's Monthly Report, June 1932, 8; Superintendent's Monthly Report, July 1932, 10; Roach, "Final Construction Report, Chinquapin Flat-Bridalveil Creek Section," 5-7.

31. Pavlik, 8-9.

32. Thomson, Superintendent's Monthly Report, June 1932, 4.

33. Idem, Superintendent's Monthly Report, October 1932, 7; Superintendent's Monthly Report, November 1932, 7.

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42. Unrau, 31.

43. Thomson to Arno Cammerer, Director, National Park Service, 15 October 1985. Yosemite Research Library collection.

44. Pavlik, 119-20.

45. U.S. Department of the Interior, National Park Service, *Yosemite National Park* (Washington, D.C.: Government Printing Office, 1937), 7.

46. Unrau, 34.

47. *Ibid.*.

48. *Ibid.*, 36-37.

49. *Ibid.*, 37.

50. *Ibid.*, 38.

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